ASH GROVE CEMENT COMPANY RECEIVED

P. O. Box 51 Nephi, Utah 84648 (435) 857-1200

DIV. OF OIL, GAS & MINING

September 8, 2003

D. Wayne Hedberg Minerals Regulatory Program Division of Oil, Gas and Mining Utah Department of Natural Resources PO Box 145801 Salt Lake City, Utah 84114-5801

RE: Nielson Sandstone Mine NOI Revisions – Current Permit number M/023/012

Dear Mr. Hedberg:

Attached please find the revised bond calculations that were requested in the DOGM comments. These were inadvertently left out of the revision package submitted on September 8, 2003.

We look forward to hearing from you and please do not hesitate to contact me at (435) 857-1208 if you have any questions or comments regarding this submittal.

Sincerely, Town / Lull

Aaron Bufmack

Assistant Plant Engineer

Ash Grove Cement, Leamington, UT

Encl.: Revised Pages of Revised Notice of Intention to Commence Large Mining

Operations - Nielson Sandstone Mine

CC: Tom Suchoski, Earthfax Engineering

TABLE 113-1a

NIELSON SANDSTONE QUARRY RECLAMATION BOND COST ESTIMATE PIT 1 - SLOPE RECLAMATION

			-	T					Note:		No.	Item
DEMOLITION TOTAL	Assume 22 operating days per month 8 hours per day	assume half time driver and oper. cost at \$205/day	Water Truck for Reclamation Project (01590-400-7000)		(c) Dataquest Bluebook rates provided by Wayne Western of DOGM Coal Division	(b) A Day is assumed to be 10 hours unless otherwise noted	(a) Means Heavy Construction Cost Data, 2000 increased by 9% to inflate to 2003 costs	was considered for any of this equipment.	Note: Unless otherwise noted, no salvage value	DEMOLITION		Description
	2		1.00		GM Coal Division		to inflate to 2003 co					Quantity
			MO				osts					Unit
											Per Unit	Materi
					H T						Total	Material Cost
			3,270.00								Per Unit	Equipn
			3,270.00								Total	quipment Cost
			4,510.00								Per Unit	Labo
			4,510.00								Total	Labor Cost
			7,780.00								Per Unit	Proje
7,780.00			7,780.00								Total	Project Cost

		9	8		7					6		T	T		л		T	I	4	-			ω		I	1	2		_	T			100	2 1	Hom
EXCAVATION - BACKFILL & GRADING TOTAL		Pickup Truck -assume 1 month project (01590-400-7200)	Foreman - assume 1 month project (01310-700-0200)		Surveying (01107-700-1100))		(Dataquest bluebook 3Q02 pg 10-8)	Excavator operating cost	channels, etc.	Rough grading with a 4 CY Excavator of access roads	(Dataquest bluebook Suoz by a-z.)	FEL operating cost	Loading of 30,000 CT of separation on	Looding of 30 000 CV of topsoil and cut	Rough grading and loading with a 8 CY FEL	(Dataquest bluebook ZQVZ pg zv-1)	truck operating cost assuming an ave. 2000 found up from	Hauling of 19,804 CY of topsoil and cut (2 trucks)	Hauling with 46 CY truck	(Dataquest bluebook 3Q02 pg 9-43 and 49)	Dozer operating cost assuming a 150' haul	Ripping of 13,628 CY or 100% of blasted material	Cat D8R Dozer ripping and push to FEL	(Dataquest pluebook awaz pg a- 43)	Dozel obelating cost assuring a 100 issue	Colloullig of 20, 104 CT of 100 % CT in and appear of 150 half	Cat D8R Dozer contouring without Ripper		Drilling and Blasting (02315-340-0100)		NIELSON SANDSTONE QUARRY SOUTH	EXCAVATION - BACKFILL & GRADING CONTINUED		Door pro-	Description
		1.00	1.00	3	1.00			40.00	0.25		4.5		50.00	0.30				50.00	0.30		20.00	0.20				85.00	0.50	a.	13,628.00						Quantity
		MO	MO	5	DAYS			HRS	MONTH				HRS	MONTH				HRS	HTNOM		HRS	MONTH				HRS	HTNOM		СҮ			3.500 No. 1			Unit
															7														1.73					Per Unit	Midici
																													23,576.44					Total	Marcha Coor
		784.40							14,945.00					12,710.00					27.250.00			13,620.00					13,620.00		2.24			The sales		Per Unit	- Thirty
-		784.40							3,/36.25	2000				3,813.00					8.175.00			2,724.00	272.00				6,810.00		30,526.72					Total	Edanburgue Cook
			†	6 471 80	545.00			101.10	101 10				87.55					180.70			97.05					97.05			2.14					Per Unit	-
			4	6 471 80	0.00			4,044.00	404400				4,377.50					9,035.00			1,941.00					8,249.25			29,163.92			The state of the s		Total	1000
		/84.40	1	6.471.80	545.00	T		101.10	1	14 045 00			87.55	12,710.00					27,250.00		60.78	10,0	13 620 00			97.05	13,620.00		6.11					Per Unit	-
	143.973.28	/04.40	704 40	6.471.80	545.00			4,044.00	4 044 00	2 726 25			4,377.50	3,813.00				9,035.00	8,175.00		1,941.00	4,724.00	2 724 00			8,249.25	6,810.00		83,267.08					Total	,

Notes and Assumptions

Production and rental rates assume 5 10-hour work days per week and 22 work days per month. Rental time has been rounded up to the nearest quarter month 8,300 CY dozed into place from berms above stopes. All fill is assumed dozed into place after being moved by truck although some will just be dozed into place Assumes 13,628 CY of cut and the same amount of fill. Assumes 6,176 CY of topsoil from the stockpile and an additional 8,300 in the berms above the slopes. Rental and operation rates for the scrappers, dozers, excavator, trucks, etc. were obtained from Wayne Western of the Utah Division of Oil Gas and Mining. The operating costs are based on the hours needed by the equipment to move the specified amount of material. Some double handling of the material is assumed. Ripper production using the Cat Handbook is estimated to be 1750 CY/hr assuming a siesmic velocity of 3 fl/sec x 1000

Dozer production for a D8R dozer with a U-blade and a 150' haul on a 2:1 slope for contouring is 170 CY/hr based on the Caterpiller Performance Handbook. (production used for 6,176 CY of topsoil pushed up slope) Dozer production for a D8R dozer with U-blade and a 150' haul pushing topsoil down slope is 840 CY/hr based on the Caterpiller Performance Handbook. (production used to move 8300 CY of topsoil from berms)

Average dozer production for a D8R dozer with a U-blade contouring 13,628 CYof hauled fill is assumed to be 350 CY/hr. (this takes into account work on slopes) Dozer production for a D8R dozer with a U-blade ripping and pushing downhill to a FEL is assumed to be 840CY/hr.

Cat 988F FEL production for loading trucks assuming 83% efficiency is 540 CY/hr. Excavator production for a 345BL excavator assuming a 75% efficiency is 450 CY/hr for loading trucks and excavating channels

Surveying is not required full time. Assume that 1 day of surveying by a 2 man crew is needed. The production for 46 CY trucks assumes 5.5 round trips per hour or 270 CY/hr/truck. The cost calculation assumes 2 trucks operating at the same time to keep the FEL efficient

A foreman and pickup truck for the entire project were accounted for in the backfill and grading section This calculation assumes 1 month will be spent to reclaiming the pit slopes

The water truck was accounted for in the demolition section.

Channel construction is included in backfill and grading costs since it only invloves grading since there is no riprap or erosion control mattin required THE HANDLING AND PLACEMENT OF TOPSOIL IS INCLUDED IN THE EXCAVATION - BACKFILL AND GRADING

Ī					Ī		T	1						c	3			2					No.	ltem	
										Area has been increased to account for a 3:1 slope		REVEGETATION TOTAL	Operating costs (Dataquest 3Q02 pg 10-8)	(Detaclinet 3000 pg 10-8)	Does required/mixing in mulch with excavator 2 CY (rental)	(02910-500-0350) pit and road	during gouging	Straw mulch - 2 tons/acre incorporated into the soil	(02820-310-1700) bit airu ibau	Seeding, nydro with mulch (Solutade)	the state of the s	REVEGETATION		Description	
													25.00		0.15			419.00			419 00			Quantity	À
													丟		MONTH			MSF			MSF			Unit	1
																		20.17			18 03		Per Unit	Mater	
																		8,451.23			7.554.57		OUBI	Material Cost	-1000
									-				80.90		9,205.00			0.92			8.56		Per Onic	Dor i Inii	Earling
													2,022.50		1,380.75			385.48			3,586.64		i Otal	I Init	inni Onet
																		0.71			8.05		rei Ollic	Per I Init	1 2
																		297.49			3,372.95		I Olai	Total	*) 70+
													80.90		9,205.00			21.80			34.64		o o o	Par I Init	Proje
												27,051.61	2,022.50		1,380.75			9,134.20			14,514.16		i Olai	Total	Project Cost

Average from 2000 OSM Reclamation Bond Amount Calculation Handbook and DOGM recommended Average from 2000 OSM Reclamation Bond Amount Calculation Handbook and DOGM recommended Amount Calculation Handbook From 2000 OSM Reclamation Bond Amount Calculation Handbook 20 20 20 23	Contractor Profit all to Overhead (1979) Mobilization / Demobilization (5%) Engineering Redesign Fee (2.5%) Reclamation Management Fee (2% of inflated direct costs) TOTAL RECLAMATION COST ESCALATION 2.89% OVER 5 YEARS = 15.31% TOTAL RECLAMATION COST
and DOGM recommended	Contractor Profit all Diversion (5%) Mobilization / Demobilization (5%) Engineering Redesign Fee (2.5%) Reclamation Management Fee (2% of inflated direct costs) TOTAL INDIRECT COSTS SUBTOTAL RECLAMATION COST ESCALATION 2.89% OVER 5 YEARS = 15.31% TOTAL RECLAMATION COST
Average from 2000 OSM Reclamation Bond Amount Calculation Handbook 17,880,49 Average from 2000 OSM Reclamation Bond Amount Calculation Handbook and DOGM recommended 8,940,24 Minimum from 2000 OSM Reclamation Bond Amount Calculation Handbook 4,470.12 From 2000 OSM Reclamation Bond Amount Calculation Handbook 25,032.68 From 2000 OSM Reclamation Bond Amount Calculation Handbook 203,837.57 31,207.53 203,837.57 31,207.53 235,045.11	Contractor Profit all Diversion (5%) Mobilization / Demobilization (5%) Engineering Redesign Fee (2.5%) Reclamation Management Fee (2% of inflated direct costs) TOTAL INDIRECT COSTS SUBTOTAL RECLAMATION COST ESCALATION 2.89% OVER 5 YEARS = 15.31%
and DOGM recommended	Contractor Profit and Overhead (1996) Mobilization / Demobilization (5%) Engineering Redesign Fee (2.5%) Reclamation Management Fee (2% of inflated direct costs) TOTAL INDIRECT COSTS SUBTOTAL RECLAMATION COST
and DOGM recommended	Contractor Profit and Overhead (5%) Mobilization / Demobilization (5%) Engineering Redesign Fee (2.5%) Reclamation Management Fee (2% of inflated direct costs) TOTAL INDIRECT COSTS
and DOGM recommended	Contractor Profit and Overhead (1996) Mobilization / Demobilization (5%) Engineering Redesign Fee (2.5%) Reclamation Management Fee (2% of inflated direct costs) TOTAL INDIRECT COSTS
and DOGM recommended	Mobilization / Demobilization (5%) Engineering Redesign Fee (2.5%) Reclamation Management Fee (2% of inflated direct costs)
and DOGM recommended	Mobilization / Demobilization (5%) Engineering Redesign Fee (2.5%)
and DOGM recommended	Mobilization / Demobilization (5%) Engineering Redesign Fee (2.5%)
and DOGM recommended	Mobilization / Demobilization (5%)
and DOGM recommended	Contractor Profit and Overnead (1977)
	1 Ouerhead (10%)
	G
	Contingencies (4%)
	INDIRECT COSTS
	TOTAL DIRECT COSTS
178,804.89	Revegetation Total
27,051.61	LINGUA
143,973.28	Excavation - Backfilling & Rough Grading Total
	Demolition Total
7,780.00	DIVECT COOL COMMANDER
	DIRECT COST SUMMARY

TABLE 113-1b

NIELSON SANDSTONE QUARRY RECLAMATION BOND COST ESTIMATE PIT 1 - FLOOR RECLAMATION

116,624.12							9				
										Assume 22 operating days per month 8 hours per day	
										assume half time driver and oper cost at \$205/day	
3,890.00	7,780.00	2,255.00	4,510.00	1,635.00	3,270.00			MO	0.50	Water Truck for Reclamation Project (01590-400-7000)	4
										Assume the same labor needed to remove as to instain	
220.00	0.40	220.00	0.40					-	550 00	Removal of silt fence	ယ
										(23/0-30-1100)	
										installation of Sili leftice	2
401.50	0.73	220.00	0.40			0.66	0.33	F	550.00	The state of Cit 6000	
										trailer with a load over 5 tons	
										Cost to dump at the Juab County Landfill for a truck and	
				20,700.00	100.00			LOAD	267.00	Tipping fees	
26,700.00	100.00			00 007 90	100 00					Assume \$1.50/mile beyond the first 20 miles	
										(02320-200-1130 and 02320-200-4700)	
1	!!!!			12,120.12	2/2.30			RT	267.00	Hauling asphalt to off-site landfill in 16.5 CY trucks	
72.720.12	272 36			72 720 42	272.26			HKU	100.00	Excavator Operating Cost	
8,090.00	80.90	8.090.00	80.90	-	0,100.00			NO	0.50	Asphalt removal - 26,367 SY x 6") = 4,394 CY	
4,602.50	9,205.00			4 602 50	00 205 00			5		2 1/2 CY Hydraulic Excavator (bluebook 3Q02, pg10-8)	
-										Asphalt Demolition	-
						3			GM Coal Division	(c) Dataquest Bluebook rates provided by Wayne Western of DOGM Coal Division	
										(b) A Day is assumed to be 10 hours unless otherwise noted	
								osts	to inflate to 2003 co	(a) Means Heavy Construction Cost Data, 2000 increased by 9% to inflate to 2003 costs	
										Unless otherwise noted, no salvage value	Note:
										DEMOLITION	
lotal	Per Unit	lotal	Per Unit	Total	Per Unit	Total	Per Unit				No.
T-151	Project Cost	Cost	Labor Cost	nt Cost	Equipment Cost	al Cost	Material Cost	Unit	Quantity	Description	Item

Notes and Assumptions

Production and rental rates assume 5 10-hour work days per week and 22 work days per month. Rental time has been rounded up to the nearest tenth of a month. Rental and operation rates for the scrappers, dozers, excavator, trucks, etc. were obtained from Wayne Western of the Utah Division of Oil Gas and Mining. The operating costs are based on the hours needed by the equipment to move the specified amount of material. Some double handling of the material is assumed.

Assumes the remaining 18,824 CY of topsoil in the stockpile are hauled to the pits by truck.

Dozer production for a D8R dozer with U-blade and a 100' haul on a flat slope for spreading topsoil is 560 CY/hr based on the Caterpiller Performance Handbook. Ripper production using the Cat Handbook is estimated to be 1750 CY/hr assuming a siesmic velocity of 3 ft/sec x 1000

Excavator production for a 345BL excavator assuming a 75% efficiency is 450 CY/hr for loading trucks with topsoil from a stockpile and excavating channels Dozer production for a D8R dozer with a U-blade ripping and pushing 300' on relatively flat ground is assumed to be 210 CY/hr.

Cat 988F FEL production for loading trucks assuming 83% efficiency is 540 CY/hr.

Surveying is not required full time. Assume that 1 days of surveying by a 2 man crew is needed. The production for 46 CY trucks assumes 4 round trips per hour or 184 CY/hr/truck. The cost calculation assumes 2 trucks operating at the same time.

This calculation assumes 0.5 months will be spent to reclaiming the pit and the access road.

The water truck was accounted for in the demolition section. A foreman and pickup truck for the entire project were accounted for in the backfill and grading section.

Channel construction is included in backfill and grading costs since it only invloves grading since there is no riprap or erosion control matting required THE HANDLING AND PLACEMENT OF TOPSOIL IS INCLUDED IN THE EXCAVATION - BACKFILL AND GRADING

TABLE 113-2

NIELSON SANDSTONE QUARRY RECLAMATION BOND COST ESTIMATE PIT 2

									4 Haul	(Data	Exca	Loac	3 Roug	(Dat	Exca	chan	2 Roug		whic	Note	(Data	Doze	Cont	1 Cat [No.	line.
	up Truck -assume i monar project (21888 1888 1887)	Diskus Truck assume 1 month project (01590-400-7200)	Ecremen - assume 1 month project (01310-700-0200)	Surveying (01107-700-1100))		(Dataquest bluebook 2Q02 pg 20-1)	truck operating cost assuming a 3000' round trip haul	Hauling of 61,030 CY of topsoil (3 trucks)	Hauling with 46 CY truck	(Dataquest bluebook 3Q02 pg 9-27)	Excavator operating cost	Loading of 61,030 CY of topsoil	Rough grading and loading with a 8 CY FEL	(Dataquest bluebook 3Q02 pg 10-8)	Excavator operating cost	channels, etc.	Rough grading with a 4 CT Excavator of access rough	the position with a A CV Excevator of access roads	which comprise less than 8% of the total area.	Note: additional 20 hours added to account for work on slopes	(Dataquest bluebook 3Q02 pg 9- 47)	Dozer operating cost assuming a 100' haul	Contouring of 29,121 CY of topsoil	Cat D8R Dozer contouring without Ripper	NIELSON SANDS I ONE QUARKT NORTH	EXCAVATION - BACKFILL & GRADING	TANKE TANKE TO CONTROL		Description
		1.00	1.00	2.00			130.00	0.60			130.00	0.60			40.00	2000	0.25					60.00	0.35						Quantity
,		MO	MO	DAYS			HRS	MONTH			HRS	MONIH			סאח	LIDO	HTNOM					HRS	MONIH						Unit
																												Per Unit	Material Cost
															ē.													Total	st
		784.40						40,875.00				12,710.00	12 710 00				14,945.00						13,020.00	2000				Per Unit	Equipment Cost
		784.40						24,525.00				1,020.00	7 626 00				3,736.25						4,707.00	A 767 00				Total	Cost
			6,353.00	010.00	545 00		2/1.05				07.33	23 50				101.10						97.00	20.70	-				Per Unit	Labor Cost
			6,353.00		0.00		35,236.50				11,001.00	44 204 50				4.044.00						3,023.00	5 8 22 00					Total	
		784.40	6,353.00		545.00		2/1.05	40,875.00	10 075 00		07.00	27 55	12 710.00			101.10	14,945.00				E e	97.00	07.05	13 620 00				Per Unit	Project Cost
105,366.65		784.40	6,353.00		1.090.00		35,236.50	24,323.00	24 525 00		11,001.00	11 381 50	7.626.00			4,044.00	3,736.25					0,020.00	5 823 00	4 767 00				Total	st

TABLE 113-2

NIELSON SANDSTONE QUARRY RECLAMATION BOND COST ESTIMATE PIT 2

Notes and Assumptions

All topsoil stripped and stockpiled will be spread during final reclamation. Rental and operation rates for the scrappers, dozers, excavator, and trucks were obtained from Wayne Western of the Utah Division of Oil Gas and Mining. Production and rental rates assume 5 10-hour work days per week and 22 work days per month. Rental time has been rounded up to the nearest quarter month The operating costs are based on the hours needed by the equipment to move the specified amount of material. Some double handling of the material is assumed.

Ripper production using the Cat Handbook is estimated to be 1750 CY/hr assuming a siesmic velocity of 3 ft/sec x 1000

Dozer production for a D8R dozer with a U-blade and a 100' haul on a flat slope for contouring is 740 CY/hr based on the Caterpiller Performance Handbook

Excavator production for a 345BL excavator assuming a 75% efficiency is 450 CY/hr for loading trucks and excavating channels Cat 988F FEL production for loading trucks assuming 83% efficiency is 540 CY/hr.

Surveying is not required full time. Assume that 2 days of surveying by a 2 man crew is needed. The production for 46 CY trucks assumes 3.5 round trips per hour or 161 CY/hr/truck. The cost calculation assumes 3 trucks operating at the same time to keep the FEL efficient

A foreman and pickup truck for the entire project were accounted for in the backfill and grading section. This calculation assumes 1 month will be spent to reclaiming the pit and the access roads.

The water truck was accounted for in the demolition section.

THE HANDLING AND PLACEMENT OF TOPSOIL IS INCLUDED IN THE EXCAVATION - BACKFILL AND GRADING

TABLE 113-2

TABLE 113-2

NIELSON SANDSTONE QUARRY RECLAMATION BOND COST ESTIMATE PIT 2

-	Doggintion	SUB INV								
Item	Description		19	Per Unit To	Total	Per Unit	Total	Per Unit	Total	
	DEMOLITION									L
Note: U	Unless otherwise noted, no salvage value									
	was considered for any of this equipment. (a) Means Heavy Construction Cost Data, 2000 increased by 9% to inflate to 2003 costs	o inflate to 2003 cost	S							
⊙ ⊕ ′	 (b) A Day is assumed to be 10 hours unless otherwise noted (c) Dataquest Bluebook rates provided by Wayne Western of DOGM Coal Division 	3M Coal Division								
<u> </u>	Asphalt Demolition									
	2 1/2 CY Hydraulic Excavator (bluebook 3Q02, pg10-8)					200	2 201 25			
Þ	Asphalt removal - 14,750 SY x 6") = 2,458 CY	0.25	MO			9,200.00	4,001.40	80.90	4,045.00	9
E	Excavator Operating Cost	50.00	TKU			272 26	40 581 64			- 1
_	Hauling asphalt to off-site landfill in 16.5 CY trucks	149.00	RT			2/2.30	40,001.04			- 1
()	(02320-200-1130 and 02320-200-4700)									- 1
٨	Assume \$1.50/mile beyond the first 20 miles					100.00	14 900 00			
1	Tipping fees	149.00	LOAD			100.00	14,900.00			
0	Cost to dump at the Juab County Landfill for a truck and									
	trailer with a load over 5 tons									
2	Water Truck for Reclamation Project (01590-400-7000)	1.00	MO			3,270.00	3,270.00	4,510.00	4,510.00	
	assume half time driver and oper. cost at \$205/day									
	Assume 22 operating days per month 8 hours per day									1 1
3	Culvert Removal					0 00	46 00	263	131.50	_
	24" CMP (02220-875-2960 x 0.5)	50.00	두			0.92	46.00	2.63	340 50	
	AS" CMD (02220-875-3000 X 1.33 X 0.5)	75.00	두			1.64	123.00	4.66	349.50	

(02315-900-0060) ½ CY tractor loader/backhoe Backfilling for all culverts included in rough grading

50.00

2

1.43

71.50

2.08

104.00

3.51

175.50

70,520.10

1.53

35.19

2.24

51.52

3.77

86.71

23.00

S

DEMOLITION TOTAL

(02315-900-0060) ½ CY tractor loader/backhoe Excavation for 36" culverts

(4.5' wide X 4' deep X 75 LF) = 50 CY

Excavation for 30"culverts
(3' wide X 4' deep X 50 LF) = 23 CY

ATION BOND COST ESTIMATE

Seeding, hydro with mulch (35b/acre) 573.00 MSF 18.03 10 10 10 10 10 10 10	No.	adailiny	Onic	Per Unit To	1	Total	otal Per	otal Per	tal Per Unit Total Per Un	otal Per Unit Total	otal Per Unit Total Per Unit
with mulch (35lb/acre) 573.00 MSF 18.03 10,331.19 50) pit and road 573.00 MSF 20.17 11,557.41 50) pit and road 573.00 MSF 20.17 11,557.41 90) pit and road 0.20 MONTH 9.3 90 pit and road 0.20 MONTH 9.3 90 pit and road 0.20 MONTH 9.3 92 pg 10-8) 25.00 HR 9.3 9.2 pg 10-8) 25.00 HR 9.3 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>_</td> <td></td> <td></td> <td></td> <td></td>							_				
with mulch (35lb/acre) 573.00 MSF 18.03 10,331.19 30) pit and road 573.00 MSF 20.17 11,557.41 50) pit and road 573.00 MSF 20.17 11,557.41 50) pit and road 573.00 MSF 20.17 11,557.41 90) pit and road 0.20 MONTH 9.2 90 pit and road 0.20 MONTH 9.2 102 pg 10-8) 25.00 HR 9.2 102 pg 10-8) 25.00 HR 9.2 103 pg 10-8) 25.00 HR 9.2 104 pg 10-8) 25.00 HR 9.2 105 pg 10-8) 25.00 HR 9.2 106 pg 10-8) 25.00 HR 9.2 107 pg 10-8) 25.00 HR 9.2 108 pg 10-8) 25.00 HR 9.2 109 pg 10-8) 25.00 HR 9.2 109 pg 10-8) 25.00 HR 9.2 100 pg 10-8) 25.00 HR 9.2 100 pg 10-8) 25.00 HR 9.2 <							+				
20) pit and road 573.00 MSF 20.17 11,557.41 50) pit and road 573.00 MSF 20.17 11,557.41 50) pit and road 0.20 MONTH 9,7 102 pg 10-8) 0.20 MONTH 9,7 s (Dataquest 3002 pg 10-8) 25.00 HR HR ES RESEEDING TOPSOIL STOCKPILE AREA 25.00 HR HR	1 Seeding, hydro with mulch (35lb/acre)	573.00	MSF	18.03	10,331.19	8.56		4,904.88	4,904.88 8.05		8.05
tons/acre incorporated into the soil 573.00 MSF 20.17 11.557.41 50) pit and road 0.20 MONTH 9.7 02 pg 10-8) 25.00 HR 9.7 REVEGETATION TOTAL ES RESEEDING TOPSOIL STOCKPILE AREA 9.7 ES RESEEDING TOPSOIL STOCKPILE							120				
50) pit and road nixing in mulch with excavator 2 CY (rental) 02 pg 10-8) x (Dataquest 3Q02 pg 10-8) REVEGETATION TOTAL ES RESEEDING TOPSOIL STOCKPILE AREA ES RESEEDING TOPSOIL STOCKPILE AREA	2 Straw mulch - 2 tons/acre incorporated into the soil	573.00	MSF	20.17	11,557.41	0.92	+	527.16		527.16	527.16 0.71
50) pit and road nixing in mulch with excavator 2 CY (rental) 02 pg 10-8) 25.00 HR REVEGETATION TOTAL ES RESEEDING TOPSOIL STOCKPILE AREA ES RESEEDING TOPSOIL STOCKPILE AREA							+				
0.20 MONTH 9.2 25.00 HR 25.00 HR	(02910-500-0350) pit and road										
EA 25.00 HR	Deep gouging/mixing in mulch with excavator 2 CY (rental)		HTNON			9,205.00	5.00	5.00 1,841.00	7	7	7
	(Dataquest 3Q02 pg 10-8)		5			8	80.90	0.90 2.022.50			
AREA INCLUDES RESEEDING TOPSOIL STOCKPILE AREA	Obelatilig was (Datadapar oxor PB/										
AREA INCLUDES RESEEDING TOPSOIL STOCKPILE AREA	REVEGETATION TO FAL										
AREA INCLUDES RESEEDING TOPSOIL STOCKPILE AREA							1		2 A 24 A		
	AREA INCLUDES RESEEDING TOPSOIL STOCKPILE AREA										
				>-			_				

DIDECT COST SI IMMARY		
DINED COMMUNICA		
Demolition Total		116,624.12
		62 075 80
Excavation - Backfilling & Rough Grading Total		63,075.60
Revenetation Total		36,203.62
Vasehement		
TOTAL DIRECT COSTS		215,903.34
INDIRECT COSTS		
	Assess from 2000 OSM Berlamation Bond Amount Calculation Handbook	8,636.13
Contingencies (4%)	CONTINUED IN PRINT THE WAY TO SEE TH	
Contractor Profit and Overhead (10%)		21,590.33
Mobilization / Demobilization (5%) Average from 2000 (Average from 2000 OSM Reciamation Borio Amount Calculation Hallabook and DOSM recommended	10,700.17
Facineering Redesign Fee (2.5%) Minimum from 2000	Minimum from 2000 OSM Reclamation Bond Amount Calculation Handbook	5,397.58
Reclamation Management Fee (2% of inflated direct costs) From 2000 OSM Rev	From 2000 OSM Reclamation Bond Amount Calculation Handbook	5,071.57
TOTAL INDIRECT COSTS		51,490.79
CLISTOTAL DECLAMATION COST		267,394.13
ESCALATION 2.89% OVER 5 YEARS = 15.31%		40,938.04
		308,332.17
TOTAL RECORDING COOT		
_		

NIELSON SANDSTONE QUARRY RECLAMATION BOND COST ESTIMATE PIT 2

TABLE 113-2

ESCALATION 2.89% OVER 5 YEARS = 15.31% TOTAL RECLAMATION COST	SUBTOTAL RECLAMATION COST	Reclamation Management Fee (2% of inflated direct costs)	Engineering Redesign Fee (2.5%)	Contractor Profit and Overhead (10%) Mobilization / Demobilization (5%)	Contingencies (4%)	TOTAL DIRECT COSTS INDIRECT COSTS	Revegetation Total	Direct COST SUMMARY Demolition Total Excavation - Backfilling & Rough Grading Total	
		From 2000 OSM Reclamation Bond Amount Calculation Handbook	Minimum from 2000 OSM Reclamation Bond Amount Calculation Handbook	Average from 2000 OSM Reclamation Bond Amount Calculation Handbook and DOGM recommended	Average from 2000 OSM Reclamation Bond Amount Calculation Handbook				
71,116.61 535,627.46	464,510.85	8,810.21	9,376.56	37,506.23 18,753.11	15,002.49	375,062.25	199,175.50	70,520.10	